

CLAIMS

1. A method of preparing a library of membrane proteins embedded in liposomes, which method comprises (a) providing a library of membrane proteins free of detergents, denaturing agents, and organic solvents, and (b) contacting the library of membrane proteins with liposomes to form a library of membrane protein-embedded liposomes.
- 10 2. The method of claim 1, wherein said membrane proteins comprise at least GPI anchor type receptors, G protein-coupled receptors, and oligomer type receptors.
- 15 3. The method of claim 1, wherein the membrane protein-embedded liposomes have a diameter of about 10 nm to about 5,000 nm.
- 20 4. The method of claim 3, wherein the membrane protein-embedded liposomes have a diameter of about 10 nm to about 500 nm.
5. The method of claim 1, wherein the weight ratio of protein to lipid is from 0.01 to 0.8.
- 25 6. The method of claim 5, wherein the weight ratio of protein to lipid is from 0.05 to 0.5.
7. The method of claim 1, wherein the amount of membrane proteins is about 10 fg or more.
- 30 8. A library of membrane protein-embedded liposomes comprising about 1×10^5 or more membrane protein-embedded liposomes, wherein the liposomes have a diameter of 10 nm or more, and wherein the amount of membrane proteins is about 10 fg or more.
9. The library of claim 8, wherein the amount of membrane

proteins is about 1 pg or more.

10. The library of claim 9, wherein the amount of membrane proteins is about 10 pg or more.

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11. The library of claim 8, which comprises about 1×10^8 or more membrane protein-embedded liposomes.